HATHOR ENERGY

HATHOR PROFESSIONAL DIGITAL DECODER PDSR-3000P USER MANUAL

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CONTENTS

1. Overview
    - 1.1 Main Features
    - 1.2 For Your Safety
    - 1.3 Unpacking

2. Specification
    - 2.1 PDSR-3000P-XXS
    - 2.2 PDSR-3000P-XXC
    - 2.3 PDSR-3000P-XXT

3. Installation and Operation
    - 3.1 Front panel
    - 3.2 Rear panel
    - 3.3 Installation
        - 3.3.1 PDSR-3000P-30S
        - 3.3.2 PDSR-3000P-30C
        - 3.3.3 PDSR-3000P-30T

4. General Functions
    - 4.1 Select Channel
    - 4.2 Channel Information
    - 4.3 Volume Control
    - 4.4 Audio Control
    - 4.5 TV/Radio switching

CONTENTS

5. Menu Information

- **5.1 Channel Manager**
- **5.2 Installation**
  - **5.2.1 PDSR-3000P-XXS**
  - **5.2.2 PDSR-3000P-XXC**
  - **5.2.3 PDSR-3000P-XXT**
  - **5.2.4 Factory Default**
- **5.3 Option Menu**
  - **5.3.1 System Setting**
  - **5.3.2 Antenna Direction Help**
  - **5.3.3 IRD Information**
- **5.4 Common Interface**
  - **5.4.1 Common Interface status**
  - **5.4.2 Descrambling Options**

6. ASI Input / Output and CI Descramble Function

- **6.1 ASI output and descramble / scramble setting**
- **6.2 CI Multi-channel Descrambling**
- **6.3 ASI Input function (It is only available on PDSR-3000P-30 series)**

7. Trouble Shooting

HATHOR PDSR-3000P

USER MANUAL

1. OVERVIEW

PDSR-3000P is a professional digital decoder with CI interface. PDSR-3000P could receive digital satellite TV signal, cable TV signal and terrestrial TV signal.
PDSR-3000P-10 series could output decoded TV image;
PDSR-3000P-18 series do not have CI interface but could output free TV image and ASI stream;
PDSR-3000P-20 series could output decoded TV image and ASI stream;
PDSR-3000P-30 series not only have the same function with 10 series, 18 series and 20 series, but also have ASI input interface.
If you have any problem of operation, please refer to the related content of this manual. If the problem still exists, please contact the seller or contact us directly.

Function / Model	Input Signal			A V	C I	ASI OUT	ASI IN	BNC Video
	Sat	Cable	Trs					
3000P-10 series	o	o	o	o	o	•	•	o
3000P-18 series	o	o	o	o	•	o	•	o
3000P-20 series	o	o	o	o	o	o	•	o
3000P-30 series	o	o	o	o	o	o	o	o

Notes:“ o ” shows that this function is available,“ • ” shows that this function is not available.

1.1 MAIN FEATURES

•Fully comply with MPEG-2 and DVB standards

•Common Interface with 2 slots (PCMCIA) that can support the encrypted systems of Irdeto, Viaccess, NDS and so on

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USER MANUAL

•Support multi-descramble function, it depends on the CI module (It is only available on PDSR-3000P-10 series/20 series/30 series

•2 slots of PCMCIA Module could descramble multi program and stream (It is only available on PDSR-3000P-10 series/20 series/30 series)

•Support ASI input, the un-decrypted programs could be further decrypted through loop through (It is only available on PDSR-3000P-30 series)

•Support professional analog video/audio interface output

•User-friendly OSD and easy-to-use menu system

•User programmable various satellite & transponder information (It is only available on DCH-3000P-XXS)

•Automatic network search for newly added transponders/networks (It is only available on PDSR-3000P-XXS)

•Stores up to 2000 channels

•SCPC/MCPC receivable from C/Ku band satellite (It is only available on PDSR-3000P-XXS)

•VBI Teletext support

•Antenna positioning help feature (It is only available on PDSR-3000P-XXS)

•Automatic PAL/NTSC conversion

•Automatic last channel saving

•Support OSD menu

HATHOR PDSR-3000P

USER MANUAL

1.2 FOR YOUR SAFETY

•Allow clear space around the equipment for sufficient ventilation

•Use only a clean, soft cloth lightly moistened with a mild detergent solution to clean the casing

•Do not connect or modify cables when the equipment is connected to the power source

•Do not remove the cover

•Do not expose the equipment to extreme heat, cold or humid conditions

•Never allow liquids, spray or other materials to come into contact with the inside of the equipment

1.3 UNPACKING

Please unpack the box to check all of the following items are included in the packaging:

•User's manual 1pc

•PDSR-3000P 1pc

•Power cord with three cores 1pc

•AV cable with three cores 1pc

•ASI cable 1pc It is only available on PDSR-3000P-20 series/30 series

•XLR connector 2pcs It is only available on PDSR-3000P-30 series

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USER MANUAL

2. SPECIFICATION

2.1 PDSR-3000P-XXS

QPSK demodulation & FEC parameter

Input Frequency Range	950MHz ~ 2150MHz
Input Level	-65dBm ~ -25dBm
Input Impedance	75Ω
Input Connector	F-type
Input Frequency band	Ku and C band
Symbol Rate	2MB~45MB (SPTS or MPTS)
FEC	+1/2, 2/3, 3/4, 5/6, 6/7,7/8
Reeds Salomon Decoding	204, 188, T = 8

LNB Control

Polarization Voltage	13V / 18V
High/Low band control	0/22K Switch

Front panel

Common Interface	PCMCIA Module slot, fully support Irdeto, Viaccess, NDS and so on
LED Display	Display current receiving channel number
8 touch button to control	UP DOWN LEFT RIGHT OK MENU ESC SHIFT
Indicator light Display	1 Power Indicator 1 Satellite Signal Locking LOCK and 1 Indicator of the second function of keys A6~A9

ASI Input

Interface	75Ω , BNC connector
Data Mode	Byte/Burst Adaptive
Packet Length	188/204 Adaptive

ASI Output

Interface	75Ω , BNC connector
Data Transmission Rate	270Mb/s
Data Mode	Byte
Packet Length	188/Bypass
Signal Level	800mV 10%

Others

Power supply	AC 90V~260V 50Hz/60Hz
Net weight	5Kg
Dimension	44mm 255mm 483mm
Operation Temperature	0-40℃
Storage Temperature	-20~70℃

2.2 PDSR-3000P-XXC

Tuner parameter

Input Frequency Range	47 ~ 862MHz
Input Level	45 ~ 90dBμ V
Symbol Rate	3.5 ~ 7Mbaud
Input Impedance	75Ω
Demodulation mode	16/32/64/128/256 QAM

ASI Output

Interface	75Ω , BNC connector
Data Transmission Rate	270Mb/s
Data Mode	Byte
Packet Length	188 or Bypass
Signal Level	800mV 10%

Others

Power supply	AC 90V~260V 50Hz/60Hz
Net weight	5Kg
Dimension	44mm 255mm 483mm
Operation Temperature	0-40℃
Storage Temperature -	20~70℃

2.3 PDSR-3000P-XXT

DVB-T demodulation & FEC parameter

Input Frequency Range	VHF: 174MHz ~ 230MHz UHF: 470MHz ~ 862MHz
Input Level	-91dBm ~ -20dBm
Input Impedance	75Ω
Input Connector	RF FEMALE
Symbol Rate	2MB~45MB (SPTS or MPTS)
OFDM Spectrum	2k and 8k
Constellation	QPSK, 16QAM, 64QAM
Guard Interval mode	1/32,1/16,1/8,1/4
FEC	1/2,2/3,3/4,5/6,6/7,7/8

HATHOR PDSR-3000P
USER MANUAL

ASI Output

Interface	75Ω , BNC connector
Data Mode	Byte / Burst
Packet Length	188 / 204 Adaptive
Signal level	800mV 10%

ASI Output

Interface	75Ω , BNC connector
Data Transmission Rate	270Mb/s
Data Mode	Byte
Packet Length	188 / Bypass
Signal Level	800mV 10%

Others

Power Supply	AC 90V ~ 260V 50Hz/60Hz
Net weight	5Kg
Dimension	44mm 255mm 483mm
Operation Temperature	0-40ºC
Storage Temperature	-20 ~ 70ºC

3. INSTALLATION AND OPERATION

3.1 FRONT PANEL

A1	POWER	Power indicator, it is on when the power supply works
A2	LOCK	Satellite signal indicator, it is on when the satellite signal is received or ASI signal is locked
A3	SHIFT	Shift indicator, when it is on, the keys of A6~A9 are of the second function
A4	LED	Display current channel No. and information, when IRD starts, it display as boot & - - - - In general, the LED displays the channel number from 0 ~ 2000, when you are tuning the volume it will display from 0 ~ 17, if you are checking the channel information, the LED will display the BER value from 0.00 – 10.00
A5	Common Interface	2 PCMCIA Module slot
A6 ~ A9	⊠ ⊠	These keys are used to set or select the parameters of functions, it will be defined with different functions in different work modes, please refer to the table below for detailed definition of A6~A9 :

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USER MANUAL

KEY	VIEWING MODE		MENU MODE
	SHIFT is off	SHIFT is on	
/ UP	Change to last channel	Select audio language	Cursor moves up
/DOWN	Change to next channel	Select audio channel	Cursor moves down
/LEFT	Decrease volume	Display channel information	Modify parameter/ Cursor moves left
/RIGHT	Increase volume	TV/Radio switch	Modify parameter/ Cursor moves right

A10	OK	Confirmation Key, it is used to enter submenu or confirm operation
A11	MENU	Menu key, it is used to display menu and command box
A12	ESC	Exit key, it is used to return to last level menu or exit menu
A13	SHIFT	Second function key, press the SHIFT key for 2 seconds, SHIFT indicator will be on, then A6~A9 will be on second function mode, please refer to the table above-mentioned. When SHIFT is on, the IRD can be operated through remote control. Please pay attention to that: the remote control is optional.

3.2 REAR PANEL

B1	XLR L	XLR interface, left audio channel balance output
B2	XLR R	XLR interface, right audio channel balance output
B3	VIDEO	RCA interface, AV video output
B4	AUDIO L	RCA interface, left audio channel output
B5	AUDIO R	RCA interface, right audio channel output
B6	VIDEO	BNC interface, multiplex video output
B7	ASI OUT 1	ASI output interface
B8	ASI OUT 2	ASI output interface
B9	ASI IN	ASI input interface
B10	RS-232	Data interface, it is used to upgrade software
B11	LNB IN	Satellite signal input interface
B12	LNB OUT	Satellite signal output interface, it provide satellite signal to next IRD.
B13	GND	Connect to ground
B14	FUSE	Fuse, it is installed in power socket
B15	AC90~260V 50Hz/60Hz	AC power socket

3.3 INSTALLATION

PDSR-3000P is installed on the 19" rack, please refer to the user's manual when you install PDSR-3000P. The following is the typical applications of PDSR-3000P (For example: PDSR-3000P-30 series).

3.3.1 PDSR-3000P-30S

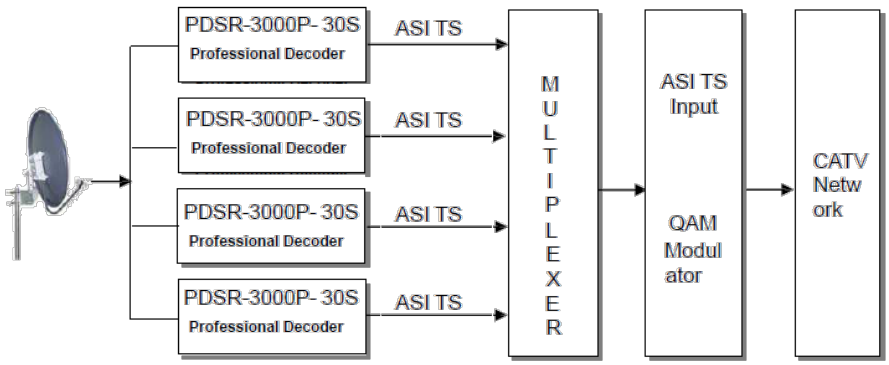
•The PDSR-3000P-30S receives the QPSK signal, and demodulates it to output ASI baseband transport stream to a DVB MPEG-2 multiplexer. The multiplexer filters or refreshes the PIDs of the selected programs, and rebuild the EPG, SI and other necessary tables.

•The PDSR-3000P-30S receives the QPSK satellite signal and demodulates it, and output ASI baseband transport stream to QAM modulator. The QAM modulator will send the QAM signal to CATV network.

•The PDSR-3000P-30S receives the QPSK satellite signal and demodulates it, and output ASI baseband transport stream to a DVB-IP gateway to work as a signal source of a media player or an encoder.

The PDSR-3000P-30S could provide baseband transport stream from satellite needed by some technicians for monitoring and analyzing.

Connect to Multiplexer



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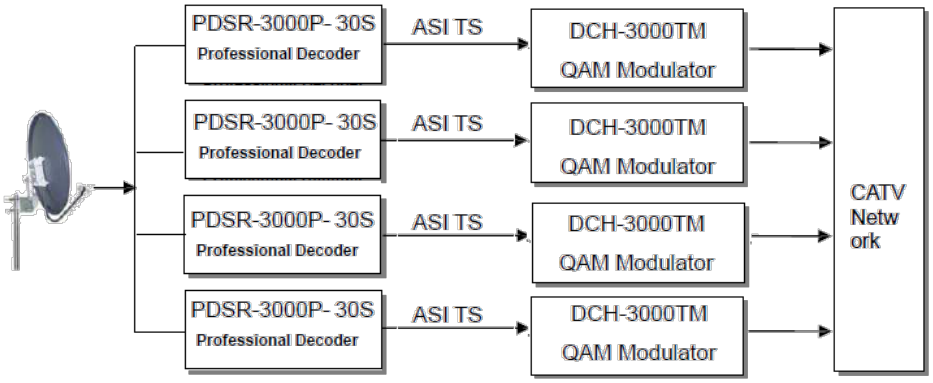
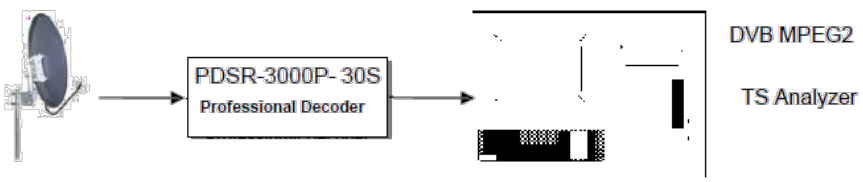
USER MANUAL

Connect to Multiplexer



Connect to TS Generator



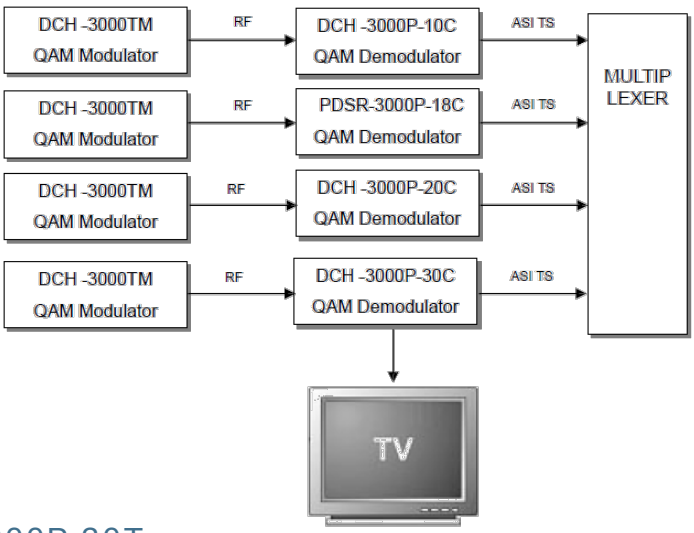
3.3.2 PDSR-3000P-30C

PDSR-3000P-30C is installed on the 19" rack. Please refer to the user's anual when you install it.
The PDSR-3000P-30C receives the signal from QAM modulator and demodulates it, and output ASI baseband transport stream to a DVB MPEG-2 multiplexer. The multiplexer filters or refreshes the PIDs of the selected programs, and rebuild the EPG, SI and other necessary tables. And outputs ASI TS through the video/audio of a TV.

HATHOR PDSR-3000P

USER MANUAL

Connect to QAM Modulator



3.3.3 PDSR-3000P-30T

PDSR-3000P-30T is installed on the 19" rack. Please refer to the user's manual when you install it. The following is the typical applications of PDSR-3000P-30T.

•The PDSR-3000P-30T receives the antenna signal, and demodulates it to output ASI baseband transport stream to a DVB MPEG-2 multiplexer. The multiplexer filters or refreshes the PIDs of the selected programs, and rebuild the EPG, SI and other necessary tables.

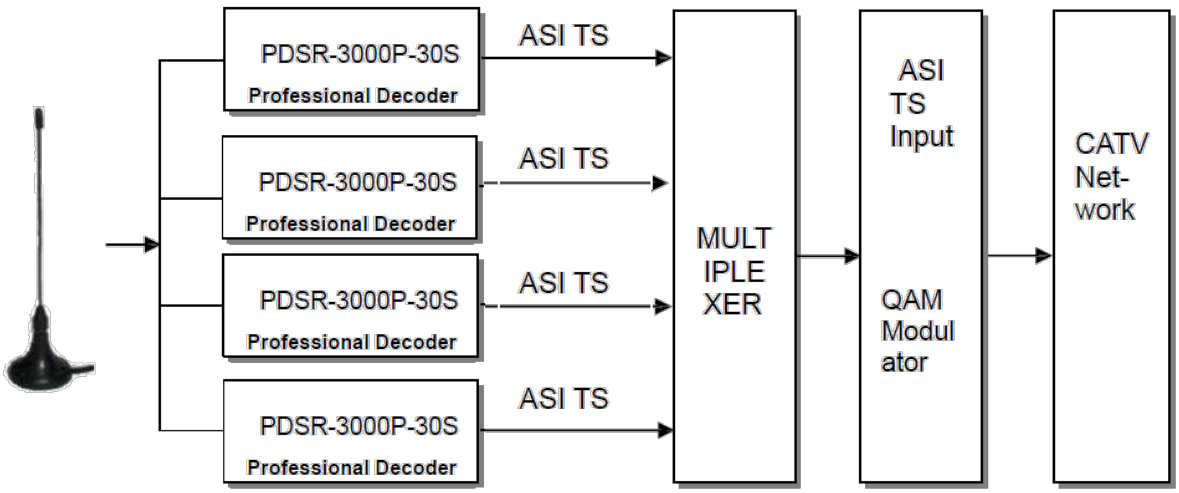
•The PDSR-3000P-30T receives the antenna signal and demodulates the signal. It will output ASI baseband transport stream to QAM modulator, the QAM modulator will send the QAM signal to CATV network.

•The PDSR-3000P-30T receives the antenna signal and demodulates the signal. It will output ASI baseband transport stream to work as a signal source of a media player or an encoder. The PDSR-3000P-30T could provide baseband transport stream from antenna needed by some technicians for monitoring and analyzing.

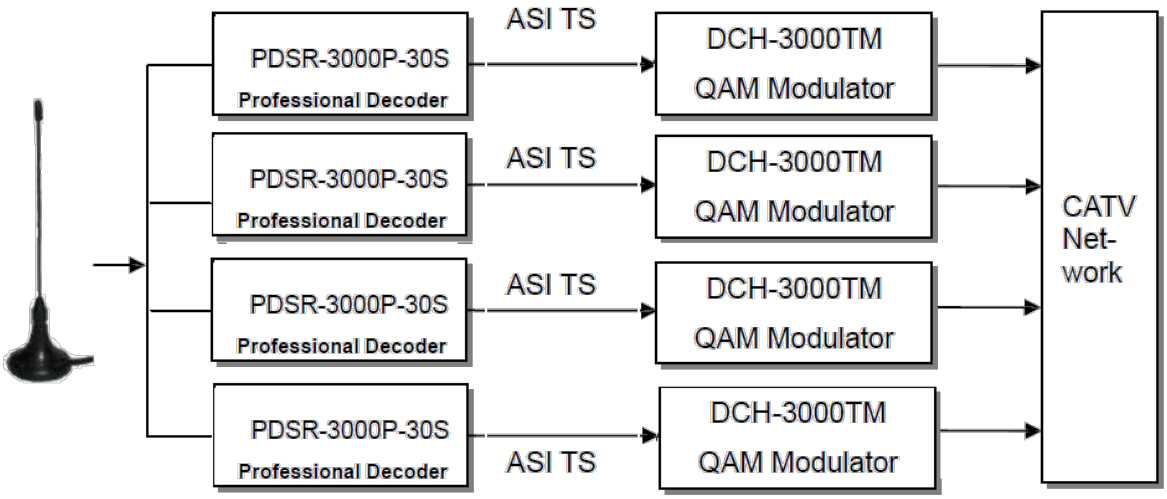
HATHOR PDSR-3000P

USER MANUAL

Connect to Multiplexer



Connect to QAM Modulator



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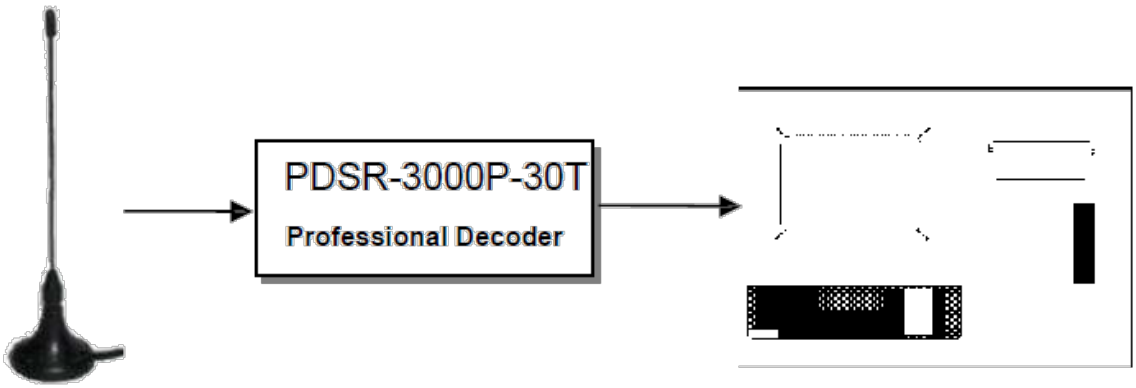
USER MANUAL

Connect to TS Generator



4. GENERAL FUNCTIONS

The following describes the basic function of your PDSR-3000P while watching satellite TV programs or listening to broadcasts.

4.1 SELECT CHANNEL

To select channels, use the keys of the front panel.

In additional to the above normal function, the PDSR-3000P provides a more convenient channel change function.

While watching, press OK key. A channel list will be displayed on the right side of the screen. Press keys to move through the list from up to down. The OK key will confirm your selection. If you press ESC key, the list will disappear.

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USER MANUAL

4.2 CHANNEL INFORMATION

Every time you change channels, you will receive short-form program information for approximately 6 seconds.

If you want to check detailed channel information, you could press key while watching or while Shift indicator (Yellow) is on. If you press ESC key, the information will disappear.

4.3 VOLUME CONTROL

While SHIFT indicator is off and watching, you could press keys of the front panel to control volume.

Notify: The IRD have 18 volume grades, while tuning volume, the LED of the front panel will display value of volume from 0 to 17.

4.4 AUDIO CONTROL

While SHIFT indicator is off and watching, press key to switch audio language, press key to switch audio channel, you will receive short-form audio information for approximately 6 seconds.

4.5 TV/RADIO SWITCHING

While SHIFT indicator is on and watching, press key to switch TV mode and Broadcasting mode.

Notify: Pressing key for 2 seconds, the SHIFT indicator will be "ON" or "OFF".

5. MENU INFORMATION

Connect the PDSR-3000P to the power source after installation and cable connection. For the first operation of the unit, the main menu will automatically be displayed. Subsequent to the initial operation, when the unit is powered up, the last channel information will be displayed. The main menu can then be accessed by pressing the MENU key of the front panel.

This Main Page menu consists of 4 primary menu items:

•Channel Manager: Edit or delete programs.

•Installation: Set antenna parameters, searching channel, and resume factory default configuration.

•Option Menu: Setting system parameters, antenna position and viewing IRD information.

•Common Interface: Checking status of common interface and setting descrambling mode.

Note:

•The keys let you move from left to right to any item within the menu, the keys let you move from up to down to any item within the menu, pressing OK key to confirm and pressing ESC key to exit.

HATHOR PDSR-3000P

USER MANUAL

•For the items with mark, the keys let you modify parameters, or press OK key to display the list, then select correct parameters in the list.

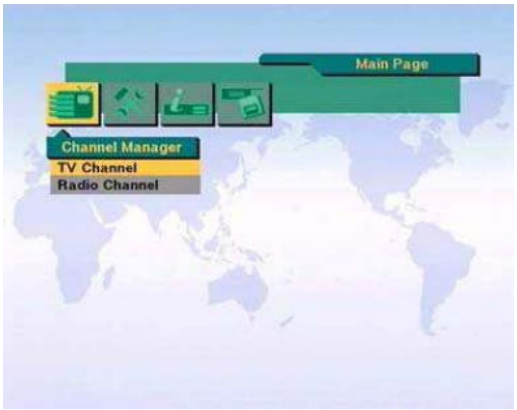
•For the items with mark, use the key to display the numeric keypad, then press the keys to move to numbers, use the keys to select correct number, and press OK to make it be in effect, use keys to select "OK" to make final confirmation of modified parameters, or to select "Cancel" to cancel the input data.

5.1 CHANNEL MANAGER

The Channel Manager consists of two items:

•TV Channel

•Radio Channel



Since the functions related to the Radio Channel is the same as that for TV Channel, this manual will only detail the TV Channel manager.

Select TV Channel from the Main Page and press OK, the TV Channel Manager is displayed. On the left side of the TV Channel menu, you can see the channel list, on the right side, you can view the current channel in the Picture in Graphic (PIG) mode (1/9 size of the normal screen size.) You could also see channel information under the PIG screen.

When you move from one channel to another, the PIG will change accordingly.

HATHOR PDSR-3000P

USER MANUAL

In the TV Channel Manager, you can delete TV channels by using Delete Channel command.

First select the TV channel you want to delete using the ^ ^ keys. Press OK.

An "X" marks the channel that will be deleted. Repeat this procedure for other TV Channels you want to delete. (To de-select any marked TV channel select it and press OK, the "X" will be removed).

If you decide to delete the marked channels, press ESC. A message "Are you sure to delete marked channels" is displayed. Select "OK" or "Cancel" in the message box and then press the OK key to make sure your operation. Press ESC to exit the Main Menu, a message is displayed " Saving data…".

After data being saved, you could view the channel list to check if the delete operation is successful.

Note:

•The deleted channel cannot be recovered unless you start a Channel Search again.

•Please do not power off when the message "Saving data…" is displayed, in case any information missed or other trouble.

HATHOR PDSR-3000P
USER MANUAL

5.2 INSTALLATION

5.2.1 PDSR-3000PXXS ANTENNA SETTING

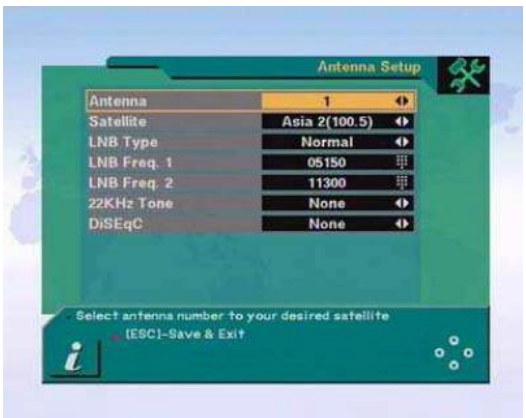
1. Antenna: Each antenna corresponds with a satellite.

2. Satellite: The name of satellite which corresponds with the antenna.

3. LNB Type: Select your LNB type, there are three options.

•General: Single Polarization LNBF
•Univ: Dual-pol. (Universal) LNB
•LNBF: Dual-pol. C-band LNB

4. LNB Freq.: When LNB type changed, the frequency of LNB changed accordingly. You could input frequency using numeric keys. PDSR-3000P supports two LNB local frequencies, if the channel couldn't be searched with first local frequency, it will automatically search the channel with second local frequency.



HATHOR PDSR-3000P
USER MANUAL

5. Switches (22KHz, DiSEqC): You could select the switches with which you want to configure the antenna.

Press ESC to finish antenna setting, the message "Are you sure to change the configuration of Antenna set up?" will be displayed. Select OK and press OK key to confirm it, and wait for the update data to be saved.

Channel Search

1.Antenna: Select the number of the antenna corresponding to the satellite you want.

Notify: On the right side of screen, you could see the correspondent parameters of selected satellite, if it is not correct, you could modify it in Antenna Setting.

2. Transponder: Use keys to select the desired TP, or move to the new TP item, you could edit the parameters of this TP.

3. Frequency & Symbol Rate: Edit the frequency and symbol rate. If the presetting program couldn't meet your requirement, you could set the satellite parameters manually.

HATHOR PDSR-3000P
USER MANUAL

4. Polarization: Select H or V.

5. Channel Search: After setting the satellite parameters, you could press keys to select serach options:

•Search SAT: Search all pre-setting channels for selected satellite.

•Search TP: Search all channels for one TP, which has been selected from the TP item.

•Search Network: Search channels for the network related to the TP selected. You could use it to search new satellite channel.

How to search: **After setting parameters, move cursor to search column, choose desired search option, then press OK to start searching.**

During searching procedure you can see a list of the previously searched channels in the Searched List Box on the screen.

On completion of searching channels, you could move cursor to select “VIEW” or “EXIT”.

HATHOR PDSR-3000P

USER MANUAL

6 In Channel Search, press Menu key, the submenu will be displayed:

- **Set PID**
- **Delete TP**
- **Search Options**

(1)Set PID: You could set PID (Packet Identifier) manually with "Set PID" command.

Move to the Transponder item and press Menu key to display the Command box, select "Set PID" command and press OK, the menu "Set PID" will be displayed, you could input correct data and press OK key to confirm it.

If the Set PID operation is successful, you could see a new program named "PIDXXXX" in the channel list, the "XXXX" means Video PID.

(2) Delete TP: Move to the Transponder you want to delete, press Menu Key to display the Command Box, then select "Delete TP" Command, the message "Are you sure to delete this TP?" will be displayed, select "OK" and press OK key to confirm it.

(3) Search Options: It provides you convenient options to search channels, you could only search FTA channels or All channels.

HATHOR PDSR-3000P

USER MANUAL

5.2.2 PDSR-3000P-XXC

Channel Search

1.No.: Each No. corresponds with a frequency.

2. Frequency: Input the frequency to be searched.

3. Symbol Rate: Input the symbol rate to be searched.

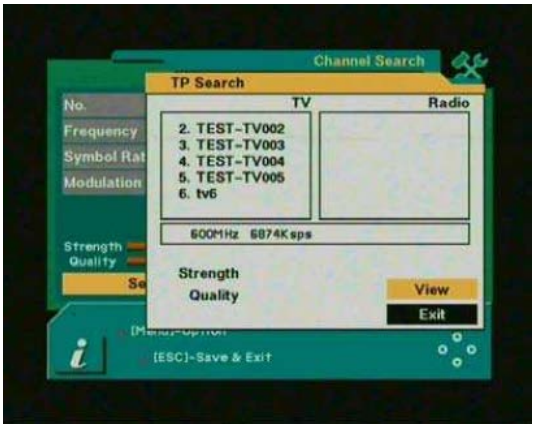
4. Modulation Mode: Choose modulation mode.

In Channel Search menu, when the parameters input or chosen corresponds with those of signal source, the indicators of signal strength and quality will become red, and the values of current strength and quality will be displayed.

Use keys to select "Search TP" after parameters are set. PDSR-3000P-XXC could search for TV and radio channels automatically.

During searching procedure, you can see a list of the previously searched channels in the Searched List Box on the screen.

On completion of searching channels, the cursor will be moved to "VIEW" automatically, then press OK key to watch the program.



HATHOR PDSR-3000P

USER MANUAL

5.2.3 PDSR-3000P-XXT

Channel Search

1. Channel: Channel number

2. Frequency: Modulation Frequency to be demodulated.

3. OFDM Spectrum: 2k or 8k carrier

4. Guard Interval: 1/32, 1/16, 1/8, 1/4

5. Constellation: QPSK, 16QAM, 64QAM

6. Hierarchi: NONE, 1, 2, 4 optional

7. FEC: 1/2, 2/3, 3/4, 5/6, 6/7, 7/8

After setting parameters, you could press keys to select search options:
•Search CH: Search programs on the selected channel
•Search Network: Search channels for the network related to the TP selected. You could use it to search new terrestrial channel.

How to search: **After setting parameters, move cursor to search column, choose desired search option. Then press OK to begin searching. During searching procedure, you can see a list of the previously searched channels in the Searched List Box on the screen. On completion of searching channels, you could move cursor to select "VIEW" or "EXIT".**

HATHOR PDSR-3000P

USER MANUAL

8 In Channel Search, press Menu key, the submenu will be displayed:

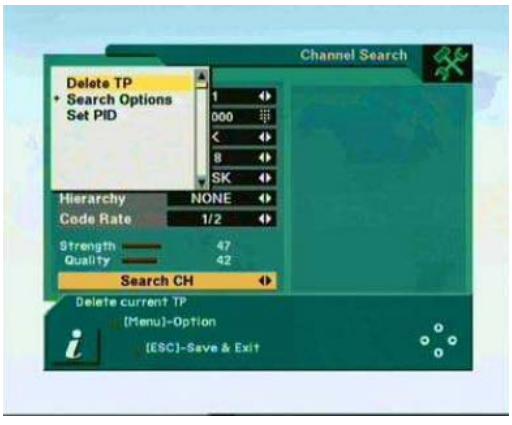
- **Set PID**
- **Delete TP**
- **Search Options**

(1)Set PID: You could set PID (Packet Identifier) manually with "Set PID" command.

Move to the Transponder item and press Menu to display the Command box, select "Set PID" command and press OK, the menu "Set PID" will be displayed, you could input correct data and press OK key to confirm it.

If the Set PID operation is successful, you could see a new program named "PID- XXXX" in the channel list, the "XXXX" means Video PID.

(2) Delete TP: Move to the Transponder you want to delete, press Menu Key to display the Command Box, then select "Delete TP" Command, the message "Are you sure to delete this TP?" will be displayed, select "OK" and press OK key to confirm it.



(3) Search Options: It provides you convenient options to search channels, you could only search FTA channels or All channels.

HATHOR PDSR-3000P

USER MANUAL

5.2.4 FACTORY DEFAULT

If you want to bring PDSR-3000P back to the factory default configuration, select “Factory Default” and press OK key.

The warning message will be displayed. If you are sure of your operation, select OK and press OK key.

Notify: **Once back to factory default condition, you will lose all of data and information, which was previously installed.**

Factory Default
It will bring your DSR to the condition of factory default
All Channel will be DELETED
And all TP Data will be INITIALIZED !
Are you sure to load Factory Default?
OK
CANCEL

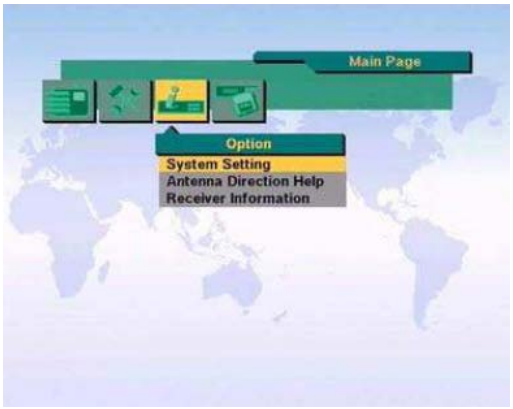
5.3 OPTION MENU

The Option Menu consists of 3 submenus:

•System Setting

•Antenna Direction Help (It is only available on PDSR-3000P-XXS)

•IRD Information



HATHOR PDSR-3000P
USER MANUAL

5.3.1 SYSTEM SETTING

1.OSD: You could select the OSD language between “Chinese” and “English".

2. Audio Language: Set the priority of audio language, you could set the desired language to be first priority under the condition that this language is supported by the channel.

3. LNB power: Set LNB power “ON” or “OFF” (It is only available on PDSR-3000P-XXS).

4. TV Type: Select the type according to your TV system, PAL / NTSC / PAL&NTSC.

5. Start On Channel: Press OK , the message “Activate Start On Channel?” will be displayed, select “OK” and press OK key, the channel list will be displayed, you could select one channel from it, the selected channel starts whenever you turn on the IRD. If you haven’t set Start On Channel, it will automatically play the last viewing channel.

6 Signal Source: Select the signal source between TUNER and ASI.

7 ASI Output: Output clear transport stream or scrambled transport stream.

8 ASI Packet: Setting ASI stream data format between “188” or “Bypass” (The PDSR-3000P will not transfer the original data package format).

HATHOR PDSR-3000P
USER MANUAL

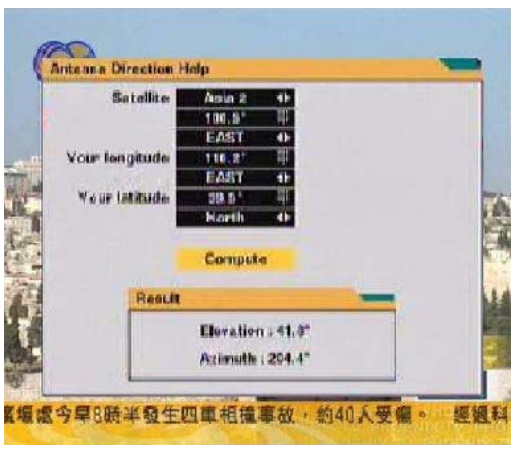
5.3.2 ANTENNA DIRECTION HELP

It provides the antenna direction help function, you could get correct information to direct your antenna toward a satellite.

Steps:

1.First select your desired satellite name, and the location information of selected satellite will be displayed. In case the location of the satellite is changed, you can re-set the new location.

2. Second, input the value of local longitude and latitude, move cursor to "Calculate" then press OK, the correct information of satellite will be displayed.



5.3.3 IRD INFORMATION

It will display the software version, hardware version and copyright information about DCH- 3000P.

5.4 COMMON INTERFACE

It has 2 CI slots, you should select the suitable CI module and Smart Card corresponding to the scrambled program.

Note: **Please pay attention to the interface direction of the CI Module and Smart Card, it should be inserted to slot with correct direction and it should not be pluged arbitrarily.**

5.4.1 COMMON INTERFACE STATUS

It is used to check the CI Module information. If the CI Module is inserted to CI slot, the corresponding slot column will display the CI Module name.

Select the slot you want to check and press OK, the related information will be displayed.

If there isn't any information about Smart Card, it will display "No Card", please insert the smart card again.

5.4.2 DESCRAMBLING OPTIONS

Multi-channel descrambling Option depends on the CI module: Only the professional CI Module can support multi-channel descrambling function.

Use this function, you could descramble multiple scrambled programs in a stream with ASI output. 2 or more or all programs in the stream are decrypted.

⌘ **Single Channel: it could only decrypt one channel in the multi-program-stream with general CI Module.**

⌘ **Multiple Channel: It is only available when the professional CI Module supports multi-descrambling function and the Smart Card has multi-program authorization, then 2 or more or all programs in the stream are decrypted.**

Note: **Please refer to 6.2 CI multiple channel descrambling.**

Slot1 Designation Channel: If the Slot1 hasn't been designated to one channel, the CI Module of Solt1 will descramble the current viewing channel; if it has been designated to one channel, the CI Module of Slot1 will only descramble the designated channel.

Slot2 Designation Channel: it is similar with Slot1 Designation Channel.

HATHOR PDSR-3000P

USER MANUAL

6. ASI INPUT / OUTPUT AND CI DESCRAMBLE FUNCTION

6.1 ASI OUTPUT AND DESCRAMBLE / SCRAMBLE SETTING (IT IS ONLY AVAILABLE ON DCH-3000P-10 SERIES / 20 SERIES / 30 SERIES)

⌘ **When you are viewing the Free-to-Air satellite program, the ASI stream of this program will be output at the same time, it could be as signal resource when it is connected to QAM Modulator or Multiplexer.**

⌘ **For scrambled programs, you should insert corresponding CI Module and CA Smart Card to descramble this program, then you could view the descrambled programs and the transport stream including the descrambled program could be output at the same time. You could choose the output stream as descrambled or scrambled. Enter system setting menu, set the ASI output to Descrambled or Scrambled. (Please refer to 5.3.1 system setting)**

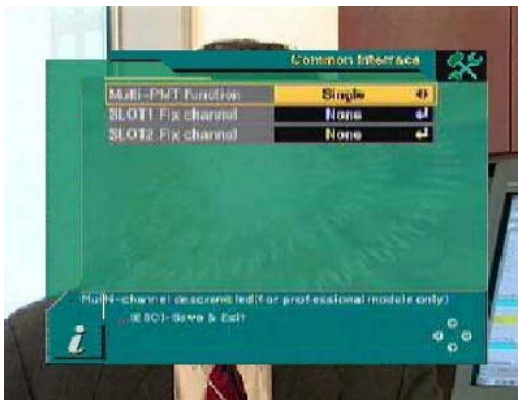
6.2 CI MULTI-CHANNEL DESCRAMBLING (IT IS ONLY AVAILABLE ON PDSR-3000P-10 SERIES / 20 SERIES / 30 SERIES)

It has 2 methods to descramble multi-channel to output the transport stream with multi-channel descrambled.

Method 1:

1.Insert professional CI Module that CA authorization. supports multi channel descrambling function and CA smart card with multi

2. Enter system setting menu, set the ASI output is "Descramble" Please refer to 5.3.1 System Setting .



3. Set the descramble option to the item "Multi Channel", and set the designation channel of Slot1 and Slot2 to "None". (Please refer to 5.4.2 Descramble option.)

4. Exit Main Menu and back to view mode, press OK key to select the channel which you want to descramble, wait for a while, it will play the selected channel, then select another program which you want to descramble, then the IRD could output the stream of multi descrambled channels.

Note:

1.Because the quantity of multi channels to be descrambled of each CI module is different, so the quantity of the synchronously descrambled channels depends on the CI Module.

2. The Multi Channels must be transmitted from the same transponder.

Method 2:

1. Slot1and Slot2 must be all inserted the CI Module and Smart Card.

2. Enter System Setting menu, set the ASI output to "Descramble". (Please refer to 5.3.1 System Setting)

3. Set the Descramble option to "Single Channel", and set the designation channel of Slot1 and Slot2 to be the channel that you want to descramble. (Please refer to 5.4.2 Descramble Option).

6.3.ASI INPUT FUNCTION (IT IS ONLY AVAILABLE ON PDSR-3000P-30 SERIES)

It provides input interface as ASI input port, it could descramble the scrambled ASI stream, and output ASI stream and AV video signal.

⌘ **It could directly receive ASI stream from various stream output equipments.**

⌘ **If you connect in series the ASI OUT and ASI IN interfaces of two or more IRDs, the more channels could be descrambled to save remultiplexing resource.**

Method: Enter the System Setting menu, set the signal resource to ASI. (Please refer to 5.3.1 System Setting.)

HATHOR PDSR-3000P

USER MANUAL

7. TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSES	WHAT TO DO
THE DISPLAY OF FRONT PANEL DOES NOT LIGHT UP.	Main cable is not connected	Check the main cable is plugged into the power socket.
NO SOUND OR PICTURE / PAUSE	The antenna is not toward to the satellite.	Adjust the antenna.
	No signal or signal is weak.	Check the cable connection, LNB and the related appliance between LNB and Decoder, or adjust the antenna.
BAD PICTURE / PAUSE	The antenna is not toward to the satellite.	Adjust the antenna.
	Signal is too strong	Add a attenuation before LNB IN.
	The antenna size is too small	Change to one big size Antenna
	LNB noise factor too high	Change to an LNB with lower Noise factor.
	The LNB is faulty.	Change the LNB.
COULDN'T VIEW THE SCRAMBLE CHANNEL	Haven't insert CI Module or the CI Module is not match the scrambled channel.	Insert correct CI Module
	Haven't insert CA Smart Card or the CA Smart Card has not authorization.	Insert correct CA Smart Card

Notify: If you have tried all the actions suggested above, and couldn't solve the problem, please contact your dealer or service provider.

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